



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

JUN 25 2014

REPLY TO THE ATTENTION OF:  
SR-6J

Clarence L. Smith, Manager  
Illinois Environmental Protection Agency  
Federal Site Remediation Section  
Division of Remediation Management  
Bureau of Land  
1021 North Grand Avenue, East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

**Subject: Matthiessen and Hegeler Zinc Company Site, LaSalle, Illinois  
Decision on Acceptable Risk Level for Residential Cleanup**

Dear Mr. Smith, *Clarence*

The U.S. Environmental Protection Agency, in consultation with Illinois EPA, has completed its review of the draft Feasibility Study (FS) Report for the Matthiessen and Hegeler Zinc Company (M&H) site in LaSalle, Illinois. The residential portion of the cleanup at the M&H site will likely be fund-financed, requiring the state's 10% cost share.

EPA evaluated a range of preliminary remediation goals (PRGs) for arsenic at the residential portion of the M&H site, including PRGs based on an excess lifetime cancer risk (ELCR) of  $10^{-6}$ ,  $10^{-5}$ , and  $10^{-4}$ , (i.e., the full range of EPA's acceptable risk range); a hazard index (HI) of 1; and site-specific background. Arsenic PRGs based on ELCRs of  $10^{-6}$  and  $10^{-5}$  are below background, so the PRG will have to be either the site-specific background level of 11.8 parts per million (ppm), which equates to an ELCR of  $4 \times 10^{-5}$ , or some other protective cleanup level within EPA's acceptable ELCR range between background ( $4 \times 10^{-5}$ ) and  $10^{-4}$ . A PRG based on an HI of 1 equates to an ELCR of  $8 \times 10^{-5}$ .

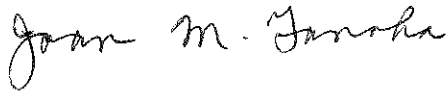
The FS considered the cost implications associated with various potential arsenic PRGs for the nearly 5,000 residential properties at the M&H site. For rough comparison purposes, the FS estimated that an arsenic PRG based on an ELCR of  $10^{-4}$  (23 ppm) would result in the cleanup of nearly 2,800 properties at a cost of approximately \$100 million, while selection of a PRG based on the site-specific background concentration would result in the need to remediate an estimated 3,200 properties at a cost of \$113 million. The limited Remedial Investigation testing conducted indicates that the number of properties needing cleanup and the cost of the cleanup using an arsenic PRG based on an HI of 1 (18 ppm) would be the same as for a PRG based on an ELCR of  $10^{-4}$ . It should be noted that these cost estimates were based on the testing of approximately 4% of the residential properties, so the actual number of properties needing cleanup – and the

resulting cost — are subject to change based on actual contaminant concentrations in each yard as determined in pre-design testing.

EPA is scheduled to propose a site cleanup plan to the public shortly and Illinois support of the selected remedy will likely be necessary in order to implement the remedy. Please respond at your earliest convenience regarding the state's ability to support a cleanup alternative with a PRG based on an HI of 1 for the residential portion of the M&H site. If this remedial alternative is not acceptable to Illinois EPA, please identify another residential remedial alternative in the FS that Illinois EPA can support. Again, a remedial alternative that sets the residential properties' cleanup level at site-specific background is included in the FS.

The EPA M&H project team and I are available to discuss this matter in more detail with you and your staff as necessary. Please let me know if this is of interest to you. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in cursive script that reads "Joan M. Tanaka".

Joan M. Tanaka, Chief  
Remedial Response Branch #1  
Superfund Division